

ABSTRACT

A method of making a material alloy for an R-T-Q based rare-earth magnet according to the present invention includes the steps of: preparing a melt of an R-T-Q based rare-earth alloy, where R is rare-earth elements, T is a transition metal element, Q is at least one element selected from the group consisting of B, C, N, Al, Si and P, and the rare-earth elements R include at least one element R_L selected from the group consisting of Nd, Pr, Y, La, Ce, Pr, Sm, Eu, Gd, Er, Tm, Yb and Lu and at least one element R_H selected from the group consisting of Dy, Tb and Ho; cooling the melt of the alloy to a temperature of 700 °C to 1,000 °C as first cooling process, thereby making a solidified alloy; maintaining the solidified alloy at a temperature within the range of 700 °C to 900 °C for 15 seconds to 600 seconds; and cooling the solidified alloy to a temperature of 400 °C or less as a second cooling process.